CLAIMS:

1. A control system for a moveable support frame having a motor and a traction device coupled to the motor to move the moveable support frame from one location to another in response to the output from the motor, the control system comprising:

a first user input device, the first user input device being operable to receive a first input from a user and provide a first signal based on the first input;

a second user input device, the second user input device being operable to receive a second input from a user and provide a second signal based on the second input; and

a controller coupled to the first user input device to receive the first signal therefrom and coupled to the second user input device to receive the second signal therefrom, the controller being operable to provide a control signal based on a sum of the first signal and the second signal to command the motor to operate at a specific output based on the control signal.

2. The control system of claim 1, wherein the first user input device includes a first elastic force sensing element.

3. The control system of claim 2, wherein the second user input device includes a second elastic force sensing element.

4. The control system of claim 2, wherein the first elastic force sensing element includes a load cell.

5. The control system of claim 1, wherein the first user input device is spaced apart from the second user input device.

6. The control system of claim 5, further comprising a handle having first and second spaced apart ends, wherein the first user input device is coupled to the first end of the handle and the second user input device is coupled to the second end of the handle.

7. The control system of claim 6, wherein the first and second user input devices are positioned between the handle and the moveable support frame to couple the handle to the moveable support frame.

8. The control system of claim 7, wherein first and second user input devices are load cells.

9. The control system of claim 5, further comprising a first handle member coupled to the first user input device and a second handle member coupled to the second user input device, the first handle member positioned in spaced relation to the second handle member.

10. The control system of claim 9, wherein the first and second user input devices include strain gauges supported on the first and second handle members for detecting strain therein.

11. The control system of claim 1, further comprising:

a power reservoir for storing energy for use by the motor;

a charge detector in communication with the power reservoir for detecting the amount of energy stored in the power reservoir and providing a signal indicative thereof; and

a shut down relay coupled intermediate the power reservoir and the motor and configured to receive the signal, wherein the relay disconnects the power reservoir from the motor when the signal indicates that the energy stored within the power reservoir is less than a predetermined amount.

12. The control system of claim 1, wherein the traction device includes a rolling support having a rotating member configured to rotate about an axis of rotation and provide mobility to the moveable support frame, and a rolling support lifter is configured to move the rolling support between a first position spaced apart from a floor and a second position in contact with the floor.

13. The control system of claim 12, wherein the rolling support lifter is configured to pivot the rolling support about a pivot axis between the first and second positions, the pivot axis of the rolling support being coaxial with the axis of rotation of the rotating member.

14. The control system of claim 12, wherein the rolling support lifter includes a rolling support mount, an actuator, and a resilient link operably coupled to the rolling support mount and the actuator, the rolling support being supported by the rolling support mount, the actuator being configured to move the link substantially horizontally such that the rolling support mount and the rolling support move between the first and second positions.

15. The control system of claim 14, wherein the rolling support lifter further includes a shuttle operably coupled to the actuator and the resilient link, the shuttle being positioned to slide relative to the moveable support frame during movement of the actuator between the first and second positions.

16. The control system of claim 12, further comprising:

a plurality of casters supporting the moveable support frame;

an external power detector, the external power detector being operable to determine if external power is supplied to the control system and provide a power indication signal in response thereto;

a caster mode detector, the caster mode detector being operable to detect a mode of operation of the casters and provide a caster indication signal in response thereto; and

a controller coupled to the external power detector to receive the power indication signal therefrom and coupled to the caster mode detector to receive the caster indication signal therefrom, the controller being operable to provide a control signal to the rolling support lifter in response to the power indication signal and the caster indication signal.

17. The control system of claim 1, further comprising a power reservoir configured to provide power to the motor, and a braking system coupled to the power reservoir and configured to detect the power available to drive the motor and to provide braking based upon the power detected.

18. The control system of claim 17, further comprising an override switch configured to disengage the braking system.

19. A control system for a moveable support frame having a motor and a traction device coupled to the motor to move the moveable support frame from one location to another, the control system comprising:

at least one handle defining a first member and a second member spaced apart from the first member, the first member being operable to provide a first user input and the second member being operable to provide a second user input;

a first user input device coupled to the first member to receive the first user input therefrom, the first user input device being operable to provide a first signal based on the first user input;

a second user input device coupled to the second member to receive the second user input therefrom, the second user input device being operable to provide a second signal based on the second user input; and

a controller coupled to the first user input device to receive the first signal therefrom and coupled to the second user input device to receive the second signal therefrom, the controller being operable to provide a control signal based on at least one of the first signal and the second signal to command the motor to operate at an output based on the control signal.

20. The control system of claim 19, wherein the first user input includes a first elastic force sensing element.

21. The control system of claim 20, wherein the second user input device includes a second elastic force sensing element.

22. The control system of claim 21, wherein the first and second elastic force sensing elements include load cells.

23. The control system of claim 19, wherein the first member is further operable to (i) receive a first user force corresponding to a first desired speed of the motor, (ii) receive a first feedback force corresponding to a first actual speed of the motor, and (iii) generate the first user input based on a difference between the first user force and the first feedback force.

24. The control system of claim 23, wherein the second member is further operable to (i) receive a second user force corresponding to a second desired speed of the motor, (ii) receive a second feedback force corresponding to a second actual speed of the motor, and (iii) generate the second user input based on a difference between the second user force and the second feedback force.

25. The control system of claim 19, wherein the first and second user input devices couple the handle to the moveable support frame.

26. The control system of claim 19, wherein the control signal is based on the sum of the first and second signals.

27. The control system of claim 19, wherein the first and second user input devices include strain gages supported by the first and second members.

28. The control system of claim 19, wherein the at least one handle comprises a first handle and a second handle positioned in spaced relation to the first handle, the first and second handles defining the first and second members.

29. The control system of claim 28, wherein the first handle and the second handle are supported for selective pivotal movement such that the first handle and the second handle are configured to fold toward each other.

30. A propulsion system for a support frame, the propulsion system comprising:

a force input device, the force input device being operable to receive a command force from a user and provide an input signal based on the command force;

a motor coupled to the force input device, the motor having a shaft, the motor being operable to rotate the shaft in response to the input signal; and

a traction device configured to receive power from the shaft to propel the support frame.

31. The propulsion system of claim 30, wherein the force input device includes an elastic force sensing element.

32. The propulsion system of claim 31, wherein the elastic force sensing element includes a load cell.

33. The propulsion system of claim 30, wherein the force input device provides the input signal in a first polarity when the command force from the user is applied in a first direction relative to the support frame and the force input provides the input signal in a second polarity when the command force from the user is applied in a second direction relative to the support frame.

34. The propulsion system of claim 33, wherein the input signal of the first polarity causes the motor to rotate the shaft in a first direction and the input signal in the second polarity causes the motor to rotate the shaft in a second direction.

35. The propulsion system of claim 34, wherein the first direction causes the support frame to move in a forward direction and the second direction causes the support frame to move in a reverse direction opposite the forward direction, movement in the reverse direction being less than movement in the forward direction.

36. The propulsion system of claim 30, further comprising an enable input device, the enable input device being operable to receive an enable command from a user and provide an enable signal in response to the enable command, the motor being configured not to rotate the shaft in the absence of the enable signal.

37. The propulsion system of claim 36, wherein the traction device includes a rolling support having a rotating member configured to rotate about an axis of rotation and provide mobility to the moveable support frame, and a rolling support lifter is configured to move the rolling support between a first position spaced apart from a floor and a second position in contact with the floor, the enable signal controlling operation of the rolling support lifter.